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10/056,695

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David Pinedo

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07/27/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

NGUYEN, HAU H

ART UNIT

PAPER NUMBER

2676

7

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,695

Applicant(s)

PINEDO ET AL.

Examiner

Hau H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed May 7, 2004 have been fully considered but they are not persuasive. In response to Applicant's arguments regarding to claims 1 and 9 that reference Hogle does not teach a mechanism configure to direct context data from the memory to the display hardware of only one of the displays with the majority of the window occupies, the examiner disagrees. As shown in Figs. 16(a)-16(c), Hogle teach when the end-user interacts with the monitor positioning window to tell USER about the geometry change, the USER reconfiguration code automatically repositions window A so that it appears entirely within a single monitor space as shown in FIG. 16(c). USER picks the monitor space based on the relative amounts of window area that appeared in each monitor space prior to the geometry change. In the example shown, USER picked monitor #2 for display of window A because, as shown in FIG. 16(a), it contained a larger portion of window A than did monitor #1 just prior to the geometry change (col. 17, lines 9-26). This implies a mechanism in the USER to direct the context data to only monitor #2. In response to Applicant's arguments that "the window of the invention is not repositioned", the examiner could not find this feature in any of the independent claims.

In regard to Applicant's arguments with respect to claim 13 that reference Hogle does not teach 'a graphics API for communicating graphics information directly to the single driver, and without communicating the graphics information through an intervening process', the examiner also disagrees. In fact, on column 7, lines 6-11, reference Hogle teach when an application or an operating system function needs to use a graphics hardware device such as the video display adapter, the application calls GDI's

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"CreateDC()" function, via GDI's application programming interface ("API"), with a data string specifying the name of the device (e.g., "Display"). As shown in Fig. 6, the GDI communicates directly with the forking display driver 201 (a single display driver), without any component or process in between.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-3, 7, 9-10, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hogle, IV (U.S. Patent No. 5,923,307).

Referring to claims 1, 7, and 13, Hogle teaches a computer system arranges multiple monitors in logical space to form a contiguous and non-overlapping region (col. 2, lines 2-7). As shown in Fig. 6, a multiple monitor architecture includes a Forking Display Driver 201 (a single device driver), which directly communicates with display hardware 36 and 205 of two displays 37 and 207 (col. 9, lines 43-54). As also seen in Fig. 6, the multiple monitor architecture further comprises a graphics API 34 (application program interface) for communicating graphics information with the single device driver 201 (col. 7, lines 6-32). Hogle further teach a USER 33 (a mechanism to direct context data), which communicates with the single device driver 201 (Fig. 6), dynamically manages the configuration of multiple monitors in logical space such that an end-user is presented with a continuous display space that spans two or more monitors (col. 10, lines

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17-20). USER 33 is able to interact directly with the adapter's device driver (col. 8, lines 8-10). It is implied that USER 33 includes a memory for storing context information corresponding to each individual monitor in order to display correct information.

In regard to claims 2-3, and 14, with reference to Figs. 16 (a-c), Hogle teach USER picks the monitor space based on the relative amounts of window area that appeared in each monitor space prior to the geometry change. In the example shown, USER picked monitor #2 for display of window A because, as shown in FIG. 16(a), it contained a larger portion of window A than did monitor #1 just prior to the geometry change (col. 17, lines 9-26).

Referring to claims 9 and 10, as cited above, Hogle teaches a graphics system having multiple displays configured as a single logical screen, and a method for directing context data to the display which has a larger portion of window, and not communicating the context information to display hardware associated with other displays (for example, monitor #1, Fig. 16c).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-5, 8, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogle, IV (U.S. Patent No. 5,923,307) in view of Trueblood (U.S. Patent No. 5,748,189).

Referring to claims 4-5, and 11-12, as applied to claims 1 and 9 above, Hogle teaches all the limitations of claims 4-5, and 11-12, except that the mechanism configured to direct context data is disposed with an X-server or a device driver for display hardware.

However, Trueblood teaches a method for allowing a single keyboard and/or mouse associated with a first work station to be used in multi-screen type operation with a plurality of non-uniform display terminals (screens) coupled to a plurality of X-servers resident on a plurality of work stations (col. 4, lines 54-59). Each X-server includes a driver for driving one or more graphic controller cards, each card is associated with one of the screens (col. 5, lines 10-12).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Trueblood in combination with the method as taught by Hogle in order to allow the use of a single keyboard and/or mouse in conjunction with a wide array of display terminals manufactured by different manufacturers without customization of the X-server software for driving the display terminals (col. 4, lines 41-46).

In regard to claim 8, Hogle teach USER 33 (Fig. 6) provides functions relating to the GUI, including functions to create, move, size, and remove screen objects such as display windows, selection menus appearing in the display windows, graphical icons, and the like (col. 7, lines 64-67, col. 8, lines 1-5). Thus, Hogle teaches all the limitations of claim 8, except that the system includes an X-Server.

However, as cited above, Trueblood teaches a system for driving multiple screen using an X-Server.

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Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Trueblood in combination with the method as taught by Hogle in order to allow the use of a single keyboard and/or mouse in conjunction with a wide array of display terminals manufactured by different manufacturers without customization of the X-server software for driving the display terminals (col. 4, lines 41-46).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hogle, IV (U.S. Patent No. 5,923,307) in view of Bowen et al. (U.S. Patent No. 6,147,695).

Referring to claim 6, as applied to claim 1 above, Hogle teaches all the limitations of claim 6, except that graphics API is OpenGL.

However, Bowen et al. teach a system and method for combining multiple video streams, which can be used in multiple display devices (col. 12, lines 41-55, and col. 14, lines 4-27) using OpenGL graphics API (col. 4, lines 13-26).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Bowen et al. in combination with the method as taught by Hogle in order to maintain high resolution and smooth transitions between frames (col. 2, lines 29-31).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

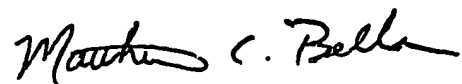
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

H. Nguyen

07/23/2004



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
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